

51. *Pandalus*, sp.

One pair (the female ovigerous) from Station 112, 561 fathoms.

Colour in life light pink.

One ovigerous female from Station 115, 188–220 fathoms.

One ovigerous female from Station 116, 405 fathoms.

Colour in life pink.

A small species, allied to some European forms, of which we have no specimens for comparison.

[To be continued.]

LIII.—*Remarks on Australian Slugs*.

By T. D. A. COCKERELL, F.Z.S., Institute of Jamaica.

As my own idea of "courteous criticism" is very different from Mr. Hedley's, I shall not attempt to reply to the opinions regarding my conduct expressed in this Magazine, pp. 169–171 (Feb. 1892).

With regard to matters of fact it is not quite the same, as, if Mr. Hedley's statements were not contradicted, they might pass as valid among those not specially acquainted with slug-literature. I will therefore discuss them one by one.

(1). *Limax megalodontes*.—Any one may see by reference to my paper that I expressed much doubt as to its being an *Aneitea*. It seemed to me very unlikely that *L. flavus* could have been in Australia at such an early date; but later, having read some observations by Mr. Musson, I expressed the opinion that it might be *L. flavus* after all (Brit. Nat. 1891, p. 120).

(2). "The conclusion has forced itself upon me," says Mr. Hedley, that all the Australian *Limaces* have been introduced from Europe. I have said nothing to the contrary, except that I provisionally regard the *Amalia* as endemic. It may be *gagates*, but writers have usually considered it distinct, and nobody has satisfactorily proved the supposed identity. It was Mr. Hedley himself who named an Australian species *Limax queenslandicus*, and regarded it as distinct until Dr. Simroth said it was *lucis*.

(3). I think anybody reading my paper will see that when

I refer to the limited powers of migration among slugs the *natural* means only are intended. It is notorious that these are *extremely* limited. I give many instances of slugs being carried long distances (from Europe to St. Helena, New Zealand, &c., for example) by *artificial* means. Also it may be observed that many species of shell-bearing mollusks have been carried quite as far; there is a whole crop of synonyms originating in European species taken to the antipodes.

(4). Mr. Hedley is of the opinion that *Aneitea Graeffei*, *Kreffti*, and *Schutei* are one species. Any one may see by reading my paper that I doubted their distinctness: I say, "Probably the number of species will be considerably reduced when they are better known." Excellent authorities have considered them distinct, and I did not feel justified, with the material I had, in lumping them. The differences I observed were not those between living and preserved specimens, but between specimens preserved in exactly the same way, and the alteration due to contraction &c., being a common factor, need not seriously interfere.

(5). *Aneitea Macdonaldi* was named by Gray, who had New-Caledonian specimens; he *supposed* these the same as Macdonald's unnamed slug from Aneiteum, but it has been since doubted whether this was the case. (As to this matter and the distinction of *T. Kreffti* from its allies, see Mr. E. A. Smith, P. Z. S. 1884, p. 273.)

(6). Eighteen species of *Helicarion* are on record from Australia; I do not say they are all distinct, but I am not in a position to reduce the number with certainty. When they have been *shown* to be less than eight in a satisfactory manner, it will be time enough to alter the statistics.

(7). I did not say that Semper had not placed *H. Cumingi* in *Xesta*. My point simply was that certain species, *usually* placed in *Helicarion*, might be separated from it, at least subgenerically. It was not within the scope of my paper to go into further details, especially as the present state of knowledge does not allow any approximately final subdivision to be made.

(8). I quoted *Parmella* as a slug-like genus which is referred by authors to the *Vitrina*-group. I had "grave doubts" myself, but could not go into the details of the matter without unduly enlarging my paper.

(9). I placed *Cystopelta* on the characters given by Tate, who described it. Mr. Hedley examined a species, possibly not the same as Tate's, found in Australia, and arrived at different conclusions. Admitting the weight of his remarks,

I inserted a qualifying footnote. What more could I have done?

(10). At the beginning of his article Mr. Hedley alludes to MS. names and imperfect diagnoses. It seems almost superfluous to state that there are no MS. names in my paper. The generic diagnoses are purposely short; but the species in the new genera and subgenera are elsewhere described in detail, with the exception of *Neojanella dubia*, which is described on p. 217. *Pseudancitea* spp. have been described and their anatomy figured by Simroth. *Pseudanustenia* has similarly been fully described and figured by Godwin-Austen. *Imerinia* has its type in specimens which I consider to be identical with *Veronicella Grandidieri*, C. & F., already described. *Aneitella* has been described and figured by Mr. E. A. Smith; the anatomy of this and of *Neojanella* remains unknown because the British-Museum types must not be cut up. There is no other generic or subgeneric name in my paper that has not been used and characterized before.

Now I think I have shown that on every single point mentioned, Mr. Hedley's criticism is without sufficient reason. Nobody appreciates more than the present writer the labours of students like Mr. Hedley in special faunæ; but is it fair that they should grumble at others, who, with less material, hesitate to assert what they cannot know with certainty?

Kingston, Jamaica,
Feb. 19, 1892.

LIV.—*On the Scale-like and Flattened Hairs of certain
Lepidopterous Larvæ.* By A. S. PACKARD.

THE late Dr. T. W. Harris* described an *Acronycta*-larva, which he called *Acronycta americanæ*, as "beset with a few long black bristles dilated at the end," and added, "the long, black, spear-headed hairs grow from the skin and not from warts." The same larva was also figured on p. 305 of my 'Guide to the Study of Insects' (fig. 236). Mr. A. G. Butler†

* 'Entomological Correspondence of T. W. Harris,' edited by S. H. Scudder. Boston, 1862.

† "On the Natural Affinities of the Lepidoptera hitherto referred to the Genus *Acronycta* of Authors," Trans. Ent. Soc. Lond., Dec. 1879, p. 313.